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Cp. 3

HIGHLIGHTS/FALL 1976

FOOD FOR THE BABY

FAST FOOD MEALS

SPENDING ON MEDICAL CARE

THE APPROPRIATE FAMILY FOOD PLAN

ARS-NE-36

Consumer and Food Economics Institute
Agricultural Research Service
U.S. DEPARTMENT OF AGRICULTURE

FAMILY ECONOMICS REVIEW is a quarterly report on research of the Consumer and Food Economics Institute and on information from other sources relating to economic aspects of family living. It is prepared primarily for home economics agents and home economics specialists of the Cooperative Extension Service.

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FOOD FOR THE BABY...COST AND NUTRITIVE VALUE CONSIDERATIONS

by Betty Peterkin and Susan Walker

How much does it cost to feed a baby? The answer, for the baby's first year alone, may differ by \$100 or more, depending on the foods selected for the baby's diet. The cost in Washington, D.C., in July 1976 and the nutritive value of some foods the baby may eat are shown here to illustrate the economic and nutritional implications of certain selections.

We do not, for the sake of economy or any other reason, suggest that all mothers should (or should not) breast feed their babies, use a certain formula, or prepare foods their babies eat at home rather than buy commercially prepared ones. These are decisions the parents must make, in consultation with their doctor or other child health professional.

Milk or Formula

The kind of milk used is a major factor in the cost of feeding the baby. Mother's milk is a safe, convenient, and economical form of milk for the baby, and authorities in infant nutrition recommend that breast feeding be encouraged (2).¹ But mother's milk is not free to the family. Indeed, it may be more costly than some types of formula. The mother who breast feeds her baby must eat more food than the mother who does not to provide adequate milk for her baby and not jeopardize her own health. For example, food in the USDA's thrifty food plan for the lactating woman costs about \$3 more per week than food in the thrifty plan for the nonlactating woman. Food in the liberal plan for the lactating woman costs over \$5 more than that in the liberal plan for the nonlactating woman (see Cost of Food at Home on p. 26). In addition, about 50 cents per week is required for a supplement containing vitamin D, usually recommended for the infant who is breast fed. Using these estimates, the total cost to the family of breast feeding the infant in early months of life is \$3.50 to \$5.50 per week. Formula for a baby, on the other hand, may cost \$2.80 to \$19.70 a

week, depending on the kind of formula used and the container in which it is purchased.

For mothers who choose not to breast feed their babies, the doctor will prescribe a formula. The formula may be made from evaporated milk or whole fluid pasteurized milk; it may be made by adding sterilized water to commercially prepared formula in concentrated or powdered form; or it may be ready-to-use commercially prepared formula. The cost of various types of formulas differs widely. For example, in Washington, D.C., the July 1976 weekly cost of milk-based formula for the baby taking five 6-oz bottles (30 fl oz) daily was—

- \$2.81, if made from whole fluid pasteurized milk fortified with vitamin D, purchased in half-gallon cartons, and sugar.²
- \$2.88, if made from evaporated milk fortified with vitamin D, purchased in 13-fl-oz cans, and sugar.²
- \$4.77, if made from concentrated formula, purchased in 13-fl-oz cans.
- \$5.01, if made from powdered formula, purchased in 1-lb cans.
- \$6.50, if purchased in ready-to-use 32-fl-oz cans.

According to these cost estimates, the family using commercially prepared ready-to-use formula might spend \$100 more during the baby's first 6 months than a family using formula made from evaporated milk or whole fluid milk and sugar.

The family using commercially prepared formula can save small amounts of money by buying it by the case or the six-pack. Savings of about 26 cents a week result if 13-fl-oz cans of concentrated formula are purchased in cases of 24, rather than singly. Only 6 cents per week is saved if 32-fl-oz cans of ready-to-use formula are purchased in cases of 6, rather than singly.

¹Italicized numbers in parentheses refer to References at end of this article.

²Includes an allowance of 50 cents per week for juice or a supplement to provide ascorbic acid (vitamin C), usually recommended with this formula.

The cost of ready-to-use formula is increased by more than one-half if bought in "serving-size" cans, and is doubled or tripled if bought in disposable bottles rather than 32-fl-oz cans. Although more expensive, the small cans and bottles of formula may be the only safe source of milk in some home situations and while traveling. A week's supply for the baby having 30 fluid ounces daily of ready-to-use formula costs—

- \$9.58 from a six-pack of 8-fl-oz cans.
- \$13.00 from a six-pack of 8-fl-oz bottles.,
- \$14.42 from a case of 24 6-fl-oz bottles.
- \$19.68 from a case of 48 4-fl-oz bottles.

Leading brands of commercially prepared milk-based formula cost about the same. Formula fortified with iron is available at the same cost as formula without iron added. Soy-based formula, developed for babies who cannot tolerate milk, costs slightly more than milk-based formula.

Ready-to-use formula and commercially prepared concentrated and powdered formulas, when reconstituted, resemble each other in that they supply 20 calories per fluid ounce. They are fortified so that a quart of formula provides recommended amounts of vitamins A, C, D, and several B vitamins. These formulas provide needed protein and calcium and, if fortified, provide substantial amounts of iron. Evaporated milk and whole fluid pasteurized milk usually are fortified with vitamin D but provide little ascorbic acid (vitamin C) or iron. Therefore, formula from these milks should be supplemented with food or pharmaceutical sources of these nutrients, as recommended by a doctor (5). Unfortified evaporated or whole milk formulas and mother's milk should be supplemented with vitamin D as well.

Foods Other Than Milk or Formula

The baby does not necessarily need food other than breast milk or formula until he is at least 6 months old (5, 14). However, infant cereal, fruit juice, and a variety of strained foods are usually introduced sometime during the first 6 months as a transition to eating "table foods." Through their use the infant becomes accustomed to foods that, along with

milk, will provide needed nutrients in later months.

Cereal. Precooked dry infant cereal mixed with water or formula is usually the first solid food given to the baby. A few spoonfuls a day of this dry cereal, introduced by 3 to 4 months of age, as recommended by a doctor, may be increased to a half ounce or more twice a day. Many infant cereals—rice, barley, oatmeal, mixed, and high protein—are available. They are convenient to use and, as indicated by information about the instant cereal in table 1, are economical sources of several nutrients. Infant cereal and milk are counted on as principal sources of many nutrients—protein, calcium, iron, thiamin, riboflavin, and niacin—even after strained foods are introduced into the baby's diet.

Infant cereal is valued as a source of iron which is needed for the prevention of iron deficiency anemia among babies. It is important as a source of iron especially in babies' diets consisting mainly of mother's milk, formula that is not fortified with iron, or cow's milk. Customary servings of other types of baby foods contain either no iron or much less iron. In addition, they are much more expensive than a customary serving of infant cereal. The continued use of infant cereal is one practical solution to the otherwise difficult problem of supplying iron to infants between 6 and 18 months of age (13). Regular cereals, such as oatmeal, grits, and some farina, that require cooking and do not have iron added, are less expensive than infant cereals. However, such cereals do not provide enough iron to insure that the baby will get recommended amounts when reasonable quantities are served.

The cost advantage of buying the large package of infant cereal rather than the small one is apparent when their unit prices shown in most supermarkets are compared. The unit price, or the price per pound, for each brand and package size of cereal usually is shown on the shelf on which the cereal is displayed. In Washington, D.C., the July 1976 cost of a pound of mixed instant cereal was—

- \$0.59 from the 1-lb package.
- \$0.72 from the 8-oz packages.
- \$1.15 from packages of six individual 1-oz packets.

Table 1. Cost and nutritive value of selected baby foods ¹

Food	Amount	Cost ²	Percentage of U.S. Recommended Daily Allowance ³ for---							Food energy	Carbo- hydrate	Fat	Sodium ⁴
			Pro- tein	Vit. A value	Vit. C	Thia- mine	Ribo- flavin	Niacin	Cal- cium				
		<i>Cents</i>								<i>Kcal</i>	<i>G</i>	<i>G</i>	<i>Mg</i>
Milk, fluid, whole ⁵	8 fl oz	5.1	47	23	6	14	68	2	48	1	159	12.0	122
Commercially prepared formula without iron added, ready-to-use ...	8 fl oz	24.8	20	33	36	28	32	23	22	6	160	16.8	(7)
Instant cereal, mixed, dry	1/2 oz	2.2	8	(7)	(7)	72	58	36	24	77	52	4.4	10
Teething biscuits	1/2 oz	5.3	6	(7)	(7)	11	10	4	11	2	54	9.1	66
Strained baby food, commercially prepared: ⁸													
Orange juice, strained	3 1/2 oz	12.9	2	7	111	10	3	3	2	3	52	11.8	1
Mixed cereal with apples and bananas ..	3 1/2 oz	14.1	5	(7)	4	33	9	33	1	9	33	18.9	70
Beef with beef broth .	3 1/2 oz	39.0	74	(7)	8	4	28	32	2	11	112	(7)	166
Chicken with chicken broth	3 1/2 oz	39.0	73	(10)	5	4	27	42	5	8	123	.1	156
Beef with vegetables (high meat).....	3 1/2 oz	23.4	32	59	7	8	12	27	2	5	89	5.7	127
Chicken with vegeta- bles (high meat)	3 1/2 oz	23.4	34	50	9	2	8	24	6	6	88	5.8	130
Chicken noodle dinner	3 1/2 oz	14.8	12	32	5	12	8	8	3	3	50	7.4	111
Macaroni, tomatoes, beef	3 1/2 oz	14.8	14	32	4	22	12	12	3	3	71	8.8	155
Carrots	3 1/2 oz	14.8	3	564	15	4	5	5	4	3	35	7.6	140
Green beans	3 1/2 oz	14.8	5	18	14	8	13	4	6	5	29	5.3	105
Pears	3 1/2 oz	14.1	2	(7)	9	33	4	2	2	2	72	17.2	6
Applesauce	3 1/2 oz	14.1	1	(7)	8	2	3	1	1	2	82	20.0	8
Apple dessert	3 1/2 oz	14.1	1	1	17	2	5	1	3	1	100	23.0	16
Fruit dessert	3 1/2 oz	14.1	1	11	10	4	2	1	1	2	97	23.6	36
Vanilla custard	3 1/2 oz	14.8	6	7	6	2	15	1	8	2	94	17.9	95

¹Costs and nutritive values are averages for foods from 3 major baby food manufacturers, except for fluid whole milk.²Prices in Washington, D.C., July 1976.³Allowance specified for use in nutritional labeling of foods for infants by the Food and Drug Administration. Title 21. Code of Federal Regulations CF2(10-199). 125.1 b. Percentages in this table have not been rounded as required for use on food labels.⁴Sodium content varies depending on the amount of salt added.⁵Derived from nutritive values given in "Composition of Foods....raw, processed, prepared" (15).⁶Commercially prepared formula with iron added provides about 19 percent of the U.S. Recommended Daily Allowance (RDA).⁷Value judged to be insignificant or was not determined by manufacturers.⁸Values shown for baby foods are for 100 grams (approximately 3 1/2 oz) of food. Cans of fruit juice contain 4.2 fl oz, jars of strained⁹Products vary widely in content depending on the amount, if any, of the nutrient added. Value is for product with nutrient added.¹⁰Only 1 of 3 manufacturers gave a value. It represented 19 percent of the U.S. RDA.

Dry infant cereals mixed with fruits commercially cost more than plain dry infant cereals. For example, cereals with bananas cost about a third more than an equal weight of infant cereal without bananas. Strained mixed cereal with apples and bananas in jars cost four times as much as dry infant cereal when costs of amounts to provide equal calories are compared. Unless it is fortified with iron, thiamin, riboflavin, and niacin, strained cereal provides considerably less of these nutrients than dry infant cereal. Teething biscuits cost over twice as much as an equal weight of infant cereal. They provide about the same amount of food energy and protein but cannot be counted on to replace cereal as a source of vitamins and minerals.

Fruit juice. Strained orange juice and fortified apple and mixed fruit juices are rich sources of vitamin C. A $\frac{1}{2}$ -cup (4-fl-oz) serving of any of these juices daily supplies the infant's recommended allowance (35 mg) abundantly. Commercially prepared strained orange juice is more expensive than juice squeezed from fresh oranges or juice reconstituted from frozen concentrate. In Washington, D.C., in July 1976 strained orange juice cost about $1\frac{1}{2}$ times as much as fresh orange juice and 4 times as much as that made from frozen concentrate (table 2).

Strained baby foods. In addition to infant cereals and strained fruit juices, the market offers a wide assortment of commercially prepared strained baby foods—meats, vegetables, fruits, and mixtures, such as soups, breakfasts, dinners, and desserts. These foods varied in cost from 14 to 39 cents per $3\frac{1}{2}$ ounces in Washington in July 1976 and were more costly as sources of food energy than breast milk and most formulas that they replace in the baby's diet. Because of these cost relationships and the fact that strained foods are unnecessary as sources of essential nutrients during early months of life, there appears to be a practical advantage in avoiding their early introduction especially for babies in families with low incomes.

Baby foods, like the foods adults eat, vary in the amounts of different nutrients they provide. For example, meats stand out as worthwhile sources of protein, iron, and certain B vitamins; vegetables make important contributions of vitamin A; and orange juice

and juices and fruits that are fortified with vitamin C provide substantial amounts of this nutrient. "High-meat" dinners, containing meat and vegetables, provide worthwhile amounts of several nutrients. (In high-meat dinners the meat appears first in the name—beef with vegetables and chicken with vegetables, for example—indicating that meat is the principal ingredient.) The protein content of high-meat dinners is only about one-half that of strained meats, such as beef with broth, but about three times that of other dinners, such as macaroni, tomatoes, and beef. Depending on their ingredients, baby food dinners may provide more of certain nutrients than strained meat alone. For example, those containing vegetables provide more vitamin A and those containing noodles or macaroni provide more thiamin than meat.

Strained fruits and desserts, which account for a high percentage of baby food sales, provide food energy but, unless fortified, do not provide worthwhile amounts of nutrients. Sugar is added to all strained fruit. Sugar and modified corn or tapioca starch, or both, are ingredients in all desserts. These ingredients increase carbohydrate and food energy levels. The frequent use of strained fruit and desserts in place of formula and cereal may result in diets that are short in nutrients.

Home-Prepared vs. Commercially Prepared

Infants can be fed safely and well and usually at lower cost if home-prepared rather than commercially prepared foods are used (table 2). This assumes that simple, economical, and nourishing foods are prepared and served at home with minimal contamination. With a blender or food chopper, a freezer, and a little advance planning, the preparation of a variety of strained baby foods may not be difficult. Foods prepared for family meals that are suitable for the baby can be pureed for immediate use or quick-frozen in small sterilized containers or ice-cube trays for later use. Some foods of soft consistency, such as cooked potatoes and ripe bananas, need only to be mashed or whipped until smooth. On the other hand, commercially prepared baby foods are a great convenience to the busy mother and may be well worth the additional cost. In homes where hygienic preparation and storage

Table 2. Cost and nutritive value of 100 grams (approximately 3½ oz) of selected strained baby foods prepared commercially and at home¹

Food	Cost ²	Percentage of U.S. Recommended Daily Allowance ³ for--							Food energy	Carbo- hydrate	Fat	Sodium ⁴	
		pro- tein	Vit. A value	Vit. C	Thia- mine	Ribo- flavin	Niacin	Cal- cium					Iron
Cents													
ORANGE JUICE, prepared--													
Commercially	12.9	2	7	111	10	3	3	2	3	52	11.8	0.3	1
At home (from fresh)	8.8	4	13	140	18	5	5	2	2	47	10.5	.3	1
At home (from frozen concentrate)	3.2	3	13	129	18	2	4	2	1	45	10.7	.1	1
BEEF, prepared--													
Commercially (with broth) .	39.0	74	(⁵)	8	4	28	32	2	11	112	(⁵)	6.5	166
At home (lean only)	36.3	167	1	(⁶)	10	38	58	2	25	214	0	9.5	60
CHICKEN, prepared--													
Commercially (with broth) .	39.0	73	(⁷)	5	4	27	42	5	8	123	.1	7.8	156
At home (flesh only)	23.1	166	7	(⁶)	12	27	108	2	10	171	0	4.8	75
CARROTS, prepared--													
Commercially	14.8	3	564	15	4	5	5	4	3	35	7.6	.1	140
At home (from fresh)	7.9	4	700	17	10	8	6	6	4	31	7.1	.2	33
At home (from canned)	9.8	3	1,000	6	4	5	5	5	5	30	6.7	.3	236
GREEN BEANS, prepared--													
Commercially	14.8	5	18	14	8	13	4	6	5	29	5.3	.2	105
At home (from fresh)	15.5	6	36	34	14	15	6	8	4	25	5.4	.2	4
At home (from canned)	14.0	6	31	11	6	8	4	8	10	24	5.2	.2	236
At home (from frozen)	14.5	6	39	14	14	15	5	7	5	25	5.7	.1	1
PEARS, prepared--													
Commercially	14.1	2	(⁵)	(⁴)	4	3	2	2	2	72	17.2	.2	6
At home (from fresh)	13.8	3	1	3	4	7	1	2	2	61	15.3	.4	2
Applesauce, prepared--													
Commercially	14.1	1	(⁵)	8	2	3	1	1	2	82	20.0	.1	8
At home (from fresh)	8.3	1	3	6	6	3	1	1	2	54	14.1	.3	1
At home (from canned applesauce)	6.5	1	3	3	4	2	0	1	3	41	10.8	.2	2

¹For commercially prepared foods the costs and nutritive values are averages for foods from 3 major baby food manufacturers; and for home-prepared foods nutritive values are derived from "Composition of Foods...raw, processed, prepared" (15).

²Prices in Washington, D.C., July 1976.

³Allowance specified for use in nutritional labeling of foods for infants by the Food and Drug Administration. Title 21. Code of Federal Regulations CF2(10-199). 125.1 b. Percentages in this table have not been rounded as required for use in food labels.

⁴Products vary widely in content depending on the amount, if any, of the nutrient added.

⁵Value judged to be insignificant or was not determined by manufacturers.

⁶Insufficient data available to provide a reliable value.

⁷Only 1 of 3 manufacturers gave a value. It represented 19 percent of the U.S. Recommended Daily Allowance.

of foods cannot be assured, commercially prepared foods may be a means of safeguarding the baby's health.

Modern methods of baby food processing are developed to minimize destruction of vitamins in the ingredients of baby foods. However, baby foods prepared by using proper procedures at home are as nutritious as commercially prepared ones; some are more nutritious. Because of the low total solids content of some commercially prepared baby foods and the addition of sugar or starch to many, concentrations of protein, vitamins, and minerals are likely to be less than for corresponding foods prepared in the home. Beef and chicken pureed at home provide more of most nutrients than commercially strained beef and chicken—chiefly because they contain less water. Home-prepared beef and chicken with broth added would provide less nutrients and cost less than home-prepared beef and chicken without broth.

Some consider lower sodium content of home-prepared meats, vegetables, and meat-vegetable mixtures for the baby an advantage. Home-prepared meat without added salt has a lower sodium content than commercially strained meat. Similarly, sodium levels of vegetables and of meat and vegetable mixtures can be controlled in home preparation, if fresh or unsalted frozen foods are used in their preparation. Baby foods prepared at home from canned meat or vegetables frequently contain more sodium than similar commercially prepared baby foods. Baby food manufacturers

voluntarily limit the level of salt added to baby foods to no more than 0.25 percent, as recommended by a special committee of the National Academy of Science-National Research Council.

Recipe changes are made frequently in the formulation of baby foods, reflecting new information about infant nutrition, advances in food technology, and new regulations of the Food and Drug Administration. Because of such changes the nutritive values of baby foods published by the manufacturers, used as the basis for this article, may not represent exactly the product as currently marketed. Information on the label of baby foods that shows the list of ingredients and frequently the nutritive value of a serving, provides a basis for making selections of foods as marketed. Prices in Washington, D.C., in July 1976 were used for estimating costs in this article. Obviously, prices in other places and at other times might differ.

Other Considerations

In addition to the nutritive value and cost of foods, other considerations are important in making decisions about the foods the baby eats. Some major considerations are the physical condition of the child; whether the mother is employed outside the home; the capability of the person or persons responsible for the care of the baby; and whether the home facilities are adequate for sanitation, refrigeration, and storage of food.

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CONSUMER EXPENDITURES SURVEY, 1972 AND 1973

The Bureau of Labor Statistics (BLS), U.S. Department of Labor, completed its most recent Consumer Expenditure Survey (CES) in June 1974. The survey, covering the years 1972 and 1973, is the only comprehensive source of detailed information on family expenditures and income related to socioeconomic and demographic characteristics of U.S. families. It was undertaken in part to revise the weights and associated pricing samples in the current Consumer Price Index and in part to obtain timely, accurate, and detailed information on how American families earn and spend their income.

The 1972-73 survey, the eighth major survey of this type, and the first since 1960-61, consisted of two separate components: (1) A diary or recordkeeping survey completed by respondents for two 1-week periods and (2) an interview panel survey in which families reported information to interviewers every 3 months over a 15-month period.¹

Preliminary data from the diary survey and from the interview panel survey have been released by BLS in several reports.²

¹ Background concerning the design, conduct, and uses of both components of the survey appears in "The 1972-73 Consumer Expenditure Survey," published in the December 1974 issue of the *Monthly Labor Review*.

² CES reports may be obtained by writing to

Diary Data

- BLS Report 448-1. First-year data, cross tabulations, selected average weekly expenditures covering the period July 1972-June 1973. (Issued November 1975.)
- BLS Report 448-2. Second-year diary data, one-way tabulations, selected average weekly expenditures, covering the period July 1973-June 1974. (Issued April 1976.)
- BLS Report 448-3. Selected weekly expenditures cross-classified by family characteristics. (Issued August 1976.)

Interview Panel Data

- BLS Report 455-1. Motor vehicle purchases and repairs, selected average annual data from 2-year interview survey for 1972 and 1973. (Issued February 1976.)
- BLS Report 455-2. Average annual expenditures and service groups classified by family characteristics, 1972 and 1973. (Issued May 1976.)

Information Office, Bureau of Labor Statistics, U.S. Department of Labor, 441 G Street, NW., Room 1539, Washington, D.C. 20210.

NUTRITIVE VALUE AND COST OF "FAST FOOD" MEALS¹

by Pamela Isom

How nutritious are "fast foods" and how much do they cost compared with similar home-prepared foods? Some comparisons we have made show that foods from McDonald's Restaurant (fast foods) are as nutritious as similar foods from home but cost twice as much. We chose McDonald's primarily because detailed food composition information is available for foods they serve.² Other research has shown that items such as hamburgers and cheeseburgers from McDonald's, Burger King, and Burger Chef are remarkably similar in proximate composition although the larger specialty burgers from these franchises may differ because of their size.³

Nutritive values for food at home were taken from USDA's "Nutritive Value of Foods," Home and Garden Bulletin No. 72. The amounts of major ingredients in sandwiches served at McDonald's were verified for reasonableness by McDonald's Corporation, and then duplicated as closely as possible in home-prepared sandwiches. The home-prepared apple pie and milkshake were made from recipes commonly used at home, and commercially frozen french fries were used to make the home-prepared fries.

Nutritive Value

Meals. The nutritive values of seven meal-type combinations of foods from McDonald's and corresponding meals prepared at home are similar (table 1). Most differences probably

result from the lack of comparability of data, rather than real differences in the nutritional quality of the meals. Whether bought at McDonald's or prepared at home, the nutritive value of each meal depends principally on the foods it contains.

Of the seven fast-food-type meals, five provide one-fifth or more of the U.S. Recommended Daily Allowance (U.S. RDA) for protein, thiamin, riboflavin, and ascorbic acid. None of the meals provide much vitamin A. Only the meal with the milk shake exceeds one-fifth of the U.S. RDA for calcium.

Fat levels in most of these meals are not excessive. In some, the percentage of food energy (calories) provided by fat is lower than 35 percent—the upper limit suggested for the total diet by the American Heart Association. In all except the Big Mac meal, fat provides less than 42 percent of calories—the average level in U.S. diets.

The fast-food-type meals provide a greater share of the U.S. RDA for food energy than for some nutrients when an allowance of 2,600 calories is assumed. For people who have energy allowances lower than 2,600 calories—women and young children, for example—the percentage of the allowance for food energy provided by these meals would be even higher. Therefore, the remainder of the day's food must be selected carefully to provide recommended amounts of nutrients without excess calories. Other meals and snacks must include especially good sources of vitamin A and possibly calcium to supplement the fast-food meal.

Individual food items. A comparison of the nutritive value of individual food items shows that McDonald's sandwiches provide more of some nutrients and less of others than similar sandwiches made at home using standard cooking procedures (table 2). For example, thiamin values are consistently lower, while riboflavin values are higher for McDonald's sandwiches than for sandwiches made at home. Buns in the sandwiches made at home assume

¹ Company names are used in this publication solely for the purpose of providing specific information. Mention of company name does not constitute a guarantee or warranty of their product by the U.S. Department of Agriculture or an endorsement by the Department over other companies not mentioned.

² "Nutritional Analysis of Food Served at McDonald's Restaurants," based on a nationwide study by the WARF Institute, January 1973, for McDonald's Corporation, Oak Brook, Ill. 60521.

³ Appledorf, H. "Nutritional Analysis of Foods for Fast-food Chains." *Jour. Food Tech.*, pp. 50-55, April 1974.

Table 1. Nutritive value and cost of meals from McDonald's Restaurant and meals prepared at home¹

Food and source	Percentage of food energy ²	Nutrient, percent of U.S. Recommended Daily Allowance							Percentage of food energy from fat	Cost ³	
		Protein	Vit. A value	Thiamin	Ribo-flavin	Calcium	Iron	Ascorbic acid		Actual dollars	Percentage related to home-prepared
Hamburger, french fries, soft drink: McDonald's	22	24	3	19	24	6	16	21	0.80	178	
Home-prepared	24	31	2	24	18	6	22	27	.45	100	
Hamburger, french fries, chocolate shake: McDonald's	30	42	3	25	57	47	21	21	1.00	189	
Home-prepared	32	46	13	29	46	38	28	30	.53	100	
Hamburger, french fries, soft drink, apple pie: McDonald's	32	28	3	20	26	8	19	24	1.05	202	
Home-prepared	33	34	2	30	22	7	23	28	.52	100	
Cheeseburger, french fries, soft drink: McDonald's	24	29	6	21	32	15	15	21	.88	176	
Home-prepared	26	37	5	24	22	16	23	27	.50	100	
Big Mac, french fries, soft drink: McDonald's	33	45	4	25	40	17	23	23	1.25	216	
Home-prepared	32	43	6	31	27	18	27	27	.58	100	
$\frac{1}{4}$ -lb hamburger, french fries, soft drink: McDonald's	28	45	5	23	39	8	24	20	1.15	209	
Home-prepared	29	46	2	28	24	8	29	27	.55	100	
Fillet of fish, french fries, soft drink: McDonald's	28	28	2	23	23	10	11	17	1.05	210	
Home-prepared	24	26	1	23	14	6	13	27	.50	100	

¹Nutritive values of commercially prepared foods from "Nutritional Analysis of Food Served at McDonald's Restaurants" based on a nationwide study by the WARF Institute, Madison, Wis., January 1973, for McDonald's Corporation; of home-prepared from "Nutritive Value of Foods," HG-72.

²An allowance arbitrarily set at 2,600 kcal. Recommended Dietary Allowance (1974) set by the National Academy of Science-National Research Council is 2,100 kcal for a teenage girl and 3,000 kcal for a teenage boy.

³Prices from Washington, D.C., area July 1976.

Table 2. Nutritive value and cost of food from McDonald's Restaurant and food prepared at home¹

Food and source	Percentage of food energy ²	Nutrient, percent of U.S. Recommended Daily Allowance						Percentage of food energy from fat	Cost ³		
		Protein	Vit. A value	Thiamin	Ribo-flavin	Calcium	Iron		Ascorbic acid	Actual dollars	Percentage related to home-prepared
Hamburger:											
McDonald's	10	20	3	12	21	5	14	6	36	0.30	125
Home-prepared	13	28	2	19	15	5	17	2	37	.24	100
Cheeseburger:											
McDonald's	12	25	6	13	30	14	13	6	41	.38	131
Home-prepared	15	34	5	19	19	15	18	2	41	.29	100
Big Mac:											
McDonald's	21	40	4	18	38	16	21	8	52	.75	203
Home-prepared	21	40	6	25	24	17	23	2	42	.37	100
¼-lb hamburger:											
McDonald's	16	41	5	15	37	7	21	5	41	.65	191
Home-prepared	18	43	2	23	21	6	25	2	43	.34	100
Fillet of fish:											
McDonald's	16	24	2	15	21	9	9	2	49	.55	190
Home-prepared	13	23	1	17	11	5	8	2	37	.29	100
French fries:											
McDonald's	8	4	(⁴)	7	2	1	2	15	42	.30	231
Home-prepared	7	3	(⁴)	5	3	1	4	25	38	.13	100
Apple pie:											
McDonald's	10	3	(⁴)	(⁴)	2	2	3	3	51	.25	357
Home-prepared	8	3	(⁴)	6	4	1	1	2	37	.07	100
Chocolate shake:											
McDonald's	12	17	(⁴)	5	33	41	5	(⁴)	20	.40	267
Home-prepared	11	15	11	5	28	32	6	3	43	.15	100
Soft drink:											
McDonald's ⁵	4	(⁴)	0	0	0	0	0	0	0	.20	250
Home-prepared	4	(⁴)	0	0	0	0	0	0	0	.08	100

¹Nutritive values of commercially prepared foods from "Nutritional Analysis of Food Served at McDonald's Restaurants" based on a nationwide study by the WARF Institute, Madison, Wis., January 1973, for McDonald's Corporation; of home-prepared from "Nutritive Value of Foods," HG-72.

²An allowance arbitrarily set at 2,600 kcal. Recommended Dietary Allowance (1974) set by the National Academy of Science-National Research Council is 2,100 kcal for a teenage girl and 3,000 kcal for a teenage boy.

³Prices from Washington, D.C., area July 1976.

⁴Insignificant amount of nutrient present.

⁵No nutritive value for soft drink available from McDonald's. Values used were from "Nutritive Value of Foods," HG-72.

the higher levels for thiamin and riboflavin required for enriched buns, effective July 1, 1975. The McDonald's buns may now have more of the nutrients added than in 1973, when the McDonald's nutritive value study was made. The higher protein levels for the home-prepared hamburger and cheeseburger may be because the amount of ground beef assumed for the home-prepared items (2 oz) was greater than the amount in the McDonald's sandwiches, or because there was a higher proportion of protein in the ground beef used in the home-prepared burgers.

McDonald's shake, with a nonfat dry milk base, provides considerably more calcium and less fat than the shake made at home from whole milk and ice cream. The level of fat in the home-prepared shake would be lower, of course, if skim or nonfat dry milk were used. Because McDonald's shake is relatively free of milk fat, it contains an insignificant amount of fat-soluble vitamin A—a nutrient that is short in the fast-food-type meals.

The food energy provided by fat in the Big Mac and fillet of fish sandwich from McDonald's substantially exceeds amounts provided by their home-prepared counterparts. One explanation for this difference may be the amount of spread assumed to be on each sandwich. One tablespoon was used in the home-prepared sandwiches; McDonald's may use more. McDonald's apple pie has a higher level of fat than pie made at home—probably

due to a greater proportion of crust in the McDonald's pie.

French fries made at home supply more ascorbic acid than McDonald's fries, according to these estimates. However, this difference is probably not of great importance because of variation in ascorbic acid content due to variety of the potato, storage conditions, and method of preparation.

Cost

Meals from McDonald's are about twice as expensive as those made at home according to these comparisons, which are based on prices in the Washington, D.C., area in July 1976. One of the hamburger meals (table 1) and the cheeseburger meal cost 1.8 times as much as the home-prepared meals, while the Big Mac cost 2.2 times as much.

The cost relationships of the individual food items from McDonald's compared with those from home vary greatly. McDonald's hamburger and cheeseburger are the best buys, costing as little as one-fourth to one-third more than home-prepared ones. On the other hand, apple pie from McDonald's costs more than 3½ times as much as pie made at home.

Costs of meals prepared at home do not take into account the cost of fuel used in cooking or the value of time spent in shopping for food, preparing the meal, and cleaning up afterward. Expenses for travel to and from McDonald's are not considered.

WOMEN IN THE UNITED STATES

In July 1975, women represented 51.3 percent of the total population and outnumbered men by 5.6 million. The average age of all women was 30 years, with 12 percent 65 years old and over. In 1975, the average length of life for women was 76.4 years¹—an increase of 28.1 years since 1900. This contrasts with an increase in life expectancy for men of 22.2 years.

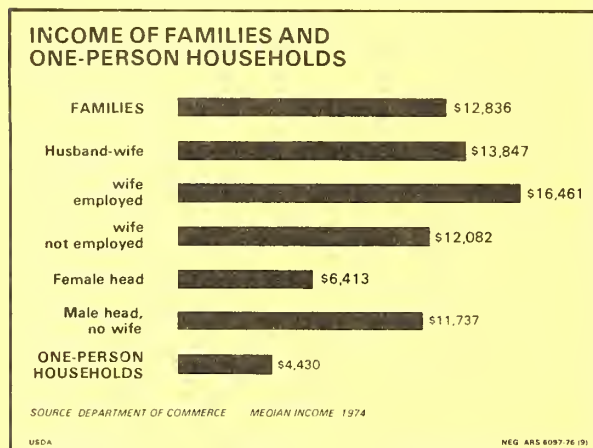
There are more single women than ever before. Changing marital patterns include later marriage and an increase in the rate of divorce. In 1975, 40 percent of women 20 to 24 years

of age were single, compared with 28 percent in 1950.

Women are better educated. The number of women 25 to 29 years old completing 4 years of college increased 73 percent between 1970 and 1975 with 19 percent of women 25 to 29 years old in this category in 1975. With the increase in female college students has come an increase in the number of women in traditional "male" majors. For example, the percentage of women enrolled in engineering increased from 2 percent in 1972 to 6.8 percent in 1974. Despite these increases, however, the number of women college graduates is only about three-fourths the number of male graduates.

¹ Preliminary figure.

Women have significantly increased their participation in the labor force. Between 1950 and 1976 the number of working women doubled, while the number of working men increased by about one-fourth. The sharpest increase in working women was among married women. In 1950 only about 25 percent of the married women were in the work force, but in 1975, 44 percent were in the work force. Working wives make significant contributions to the family income. The median income of husband-wife families in 1974 where the wife was not employed was \$12,082, compared with \$16,461 when the wife was employed.

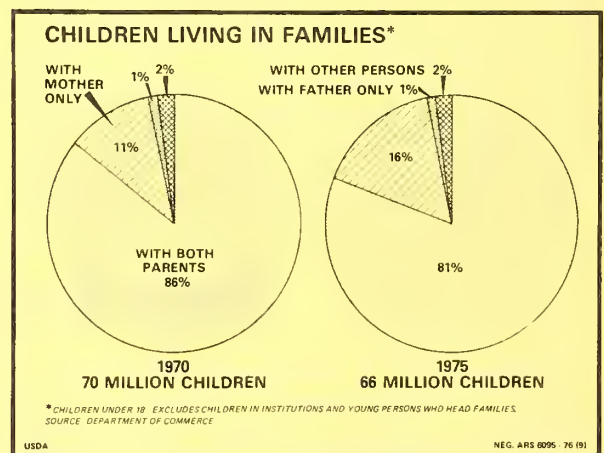


Declining fertility of women and expansion of the service sector of the economy have contributed to the trend for more working wives. Fertility, represented by the proportion of wives with children under 6, has declined markedly from approximately 32 percent in 1965 to 26 percent in 1975. The service sector, the industrial sector in which women most often hold jobs, has doubled since 1950, while the number working in the goods-producing sector has risen by only about a fifth. In 1975, 82 percent of all women working in nonagricultural industries were employed in the service sector where they held about 45 percent of the jobs.

Families with female heads numbered over 7 million in 1975—13 percent of all families. This represents a 73-percent increase since 1960. The median age of women who head families has decreased from 50.5 years in 1960 to 43.4 years in 1975. More of these women were working in 1975 (54.3 percent) than in 1960 (49.9 percent); however, their income has

not increased as greatly as the income of families headed by men. In 1974 the median income of female-headed families was 47 percent of the median income of male-headed families. Over 32 percent of all female-headed families are below the poverty level, as compared with only 6 percent of male-headed families.

One important problem resulting from the recent trends in women's employment and family patterns is that of child care and child rearing. Increasing proportions of children are living in families that do not follow the traditional family model of husband-breadwinner and wife-homemaker. In March 1970, 38 percent of all children under age 18 in husband-wife families where the head was in the labor force were in multiworker families—5 years later the proportion was 43 percent. Children of multiworker families may benefit from increased family income. In contrast, of the children who live in female-headed families, 50 percent are below the poverty level. In 1975, about 15 percent of all children living in families lived with their mothers only—an increase of 38 percent since 1970.



Sources: Hayghe, H., Families and the rise of working wives—an overview, *Monthly Labor Rev.* 99(5): 12-19, May 1976, U.S. Dept. of Labor. McEaddy, B.J., Women who head families: A Socioeconomic analysis, *Monthly Labor Rev.* 99(6): 3-9, June 1976, U.S. Dept. of Labor. U.S. Department of Commerce, Bureau of the Census, *Current Population Reports, A Statistical Portrait of Women in the U.S.*, Special Studies, Series P-23, No. 58, April 1976. U.S. Department of Labor, Employment Standards Adm., *1975 Handbook on Women Workers*, Bul. 297, 1975.

SPENDING ON MEDICAL CARE

Total Expenditures

Spending for medical care totaled \$118.5 billion in fiscal year 1975—an average of \$547 per person.¹ Between 1974 and 1975 spending increased 14 percent, a significantly higher increase than that between 1973 and 1974 when price controls in the health industry were in effect for most of the year. Since 1965, spending on medical care has tripled from \$38.9 billion to \$118.5 billion, and as a share of the Gross National Product, it has risen from 5.9 percent to 8.3 percent. Inflation has accounted for 53 percent of the increase in medical care spending between 1965 and 1975. Technological developments in areas such as equipment and drugs, the use of new lifesaving (but often costly) medical techniques, and greater use of medical care services accounted for 38 percent of the increase. Population growth has had relatively little effect on medical care spending in the past 10 years—accounting for only 9 percent of the increase.²

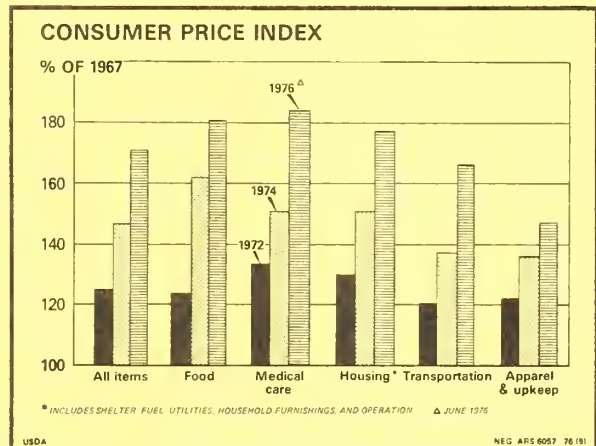
Types of Expenditures

Spending for health care services of direct benefit to the individual (personal health care), such as hospital care, physicians' services, and drugs, accounted for 87 percent of all medical care spending in 1975. Spending for research, construction, administration, and disease control and detection accounted for 13 percent (table 1).

Hospital care represents the largest share of the personal health care dollar. Approximately \$46.6 billion was spent on hospital care in 1975; this was 45 percent of the personal

health care bill. Expenditures for physicians' services was the second largest category, accounting for 22 percent of personal health care. Drugs and drug sundries accounted for 10 percent; nursing-home care accounted for 9 percent; and dentists' services accounted for 7 percent.

The Consumer Price Index for medical care was 183.7 in June 1976, higher than the index for all items—170.1, and the indexes for individual categories of food, housing, transportation, and apparel and upkeep (see chart). Medical care prices increased 9.3 percent between June 1975 and June 1976. The only major item increasing faster than medical care was transportation at a rate of 10.7 percent.



Hospital prices, as measured by semiprivate room charges, have risen faster since June 1975 than prices for any other medical care item. In June 1976, hospital prices were 265.1 on the Consumer Price Index, in comparison with an overall medical care index of 183.7 (table 2).

The cost to hospitals in 1974 of providing care was \$111 per adjusted patient day³—a jump of 178 percent since 1965. Wage increases accounted for 36 percent of the price rise, and higher prices paid by hospitals for goods and services accounted for 16 percent.

¹ All years mentioned in this article refer to fiscal years, ending June 30. For example, fiscal year 1975 refers to the 12-month period—July 1, 1974 to June 30, 1975.

² The changing age distribution of the population toward more aged persons, however, increases the utilization of medical services, especially hospitals, and therefore contributes to the overall increase in spending for medical care. (In 1975, persons 65 years and over made up 10.5 percent of the population; in 1960, this group was 9.2 percent of the total population.)

³ This is the estimated cost of providing a day of in-patient hospital care adjusted to account for the volume of outpatient visits.

Thus, over one-half the rise in cost during this period can be attributed to the additional expense necessary to maintain the same level of hospital services. The remainder of the cost rise was largely due to additional staff and acquisition of new equipment.

Hospital costs vary greatly between geographic regions. Costs were a third higher in metropolitan hospitals than in non-metropolitan facilities in 1973. The total expense per adjusted-patient-day ranged from \$70 in Mississippi to \$145 in Alaska. The cost level variation of hospital care can depend on a number of factors, including hospital characteristics and personal income level in the surrounding community. Patterns of medical practice, such as average length of hospital stay and intensity of care, vary geographically and

can affect costs. The average cost per day also will vary according to the volume of outpatient visits, because the cost of an outpatient visit is considerably less than that of an in-patient day.

Prices for professional services have also increased sharply in recent years. After the lifting of price controls of the Economic Stabilization Program, physicians' fees increased 13.4 percent and dentists' fees increased 11.2 percent.

Medical Care Funding

Public funding of personal health care is becoming increasingly more important. Public funds paid for about 40 percent of the 1975 personal health care bill, consumers paid out of pocket for 32 percent, and other private sources paid for 28 percent (table 3). Public

Table 1. National health expenditures by type of expenditure, 1975

Type of expenditure	Amount	Percentage of total	Percentage of type
	<i>Mil. dol.</i>		
Total	118,500	100	
Personal health care	103,200	87	100
Hospital care	46,600		45
Physicians' services	22,100		22
Drugs and drug sundries	10,600		10
Nursing-home care	9,000		9
Dentists' services	7,500		7
Other health services	3,000		3
Eyeglasses and appliances	2,300		2
Other professional services ..	2,100		2
Nonpersonal health care	15,300	13	100
Expenses for prepayment and administration	4,593		30
Construction	4,500		29
Government public health activities	3,457		23
Research	2,750		18

Source: Mueller, M. S., and Gibson, R. M. National health expenditures, fiscal year 1975. *Soc. Sec. Bul.* 39(2): 3-20, 1976. U.S. Dept. Health, Education, and Welfare.

spending for personal health care increased more than 22 percent between 1974 and 1975—about twice the increase for private spending. In 1975, 55 percent of hospital care was paid for by public funds and 37 percent was paid by private funds. Payment for physicians' services came almost equally from public funds, private funds, and direct payments by consumers. Dentists' services and drugs were paid for almost entirely through direct payments by consumers.

Public funds for health care came from all levels of government—Federal, State, and local. The Federal share of total public spending always has been the largest, but with the advent of Medicare and Medicaid it became dominant, jumping from 42 percent of public spending in fiscal 1966 to 60 percent in 1967—the first full year of the two programs. In 1975, the Federal share of public spending was 67.5 percent. Expansion of the Medicare and Medicaid programs accounted for 72 percent of the overall rise in public spending in 1975. The Medicare program cost almost \$15 billion in 1975, an increase of about 30 percent over the previous year. Most of Medicare spending was for hospital care and physicians' services for the elderly and disabled. The Medicaid program, primarily for the poor and medically indigent, cost \$13 billion in 1975—up 25 percent from 1974.

In 1974, 163 million persons or 78 percent of the civilian population had private health insurance that covered hospital-care costs; 75 percent were covered for physicians' services. For other types of care, the proportions of the population insured were smaller. Only 16 percent of the civilian population had some coverage for dental care and 33 percent had coverage for nursing-home care—mostly in the form of supplements to Medicare coverage for the aged and disabled.

Most Americans bought their health insurance protection from insurance companies or through Blue Cross-Blue Shield plans. Only 6 percent of the population received health care through prepaid community plans, union plans, private group clinics, and health maintenance organizations. Depth of coverage was a problem for many of the insured; full comprehensive coverage is not commonplace. Buyers of insurance often encounter restrictions on coverage, such as exclusion from

benefits due to preexisting conditions, age-limit restrictions, benefit ceilings, substantial deductible payments, waiting periods, and non-coverage of some types of illnesses.

Because the extent of overlap or duplication in numbers of persons covered by public programs and private insurance is not known, the number of persons without economic protection against the costs of health care and illness is not easily determined. It is estimated, however, that about 38 million Americans under age 65 have no private insurance for hospital care, that 41 million have no surgical insurance, and that 22 million or 12 percent of the population have no health insurance protection under either public or private programs.

Medical Care Spending by Age

The average personal health care bill in 1975 for persons over age 65 (\$1,360) was almost four times greater than that for persons under age 65 (\$375). Almost one-half of the expenditures of the aged was for hospital care and 25 percent was for nursing-home care. Persons under age 65 spent nearly the same percentage on hospital care, but only 2 percent on nursing-home care. The younger age group spent a larger percentage on physicians' and professional services and on drugs and drug sundries.

Public funds, mainly Medicare and Medicaid, paid for over 65 percent of the personal health

Table 2. Consumer Price Index for health expenditures, June 1976

(1967 = 100)

Expenditure category	Index
Medical care	183.7
Drugs and prescriptions ...	126.0
Physicians' fees	188.3
Dentists' fees	171.6
Hospital care ¹	265.1

¹As measured by semiprivate room charges.

Source: U.S. Department of Labor, Bureau of Labor statistics.

Table 3. Distribution of personal health care dollars by type of expenditure and source of funds, 1975

Type of expenditure	Source of funds							
	All sources	Direct payments by consumers	Private funds ¹	Public funds ²	All sources	Direct payments by consumers	Private funds ¹	Public funds ²
All expenditures	103,200	33,599	28,677	40,924	100	32.6	27.8	39.6
Hospital care	46,600	3,736	17,221	25,643	100	8.0	37.0	55.0
Physicians' services ..	22,100	7,618	8,627	5,855	100	34.5	39.0	26.5
Dentists' services	7,500	6,347	738	415	100	84.6	9.9	5.5
Drugs and drug sundries	10,600	9,011	684	905	100	85.0	6.5	8.5
All other services ³ ...	16,400	6,887	1,407	8,106	100	42.0	8.6	49.4
	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
		<i>Million dollars</i>				<i>Percent</i>		

¹Private funds include private health insurance, philanthropy, and industry.

²Includes Federal, State, and local spending.

³Includes other professional services, eyeglasses and appliances, nursing-home care, and other services not elsewhere classified.

Source: Mueller, M. S., and Gibson, R. M. National health expenditures, fiscal year 1975. *Soc. Sec. Bul.* 39(2): 3-20, 1976. U.S. Dept. Health, Education, and Welfare.

care expenses of the aged in 1975. In contrast, persons under age 65 financed their health-care expenditures mostly with private funds, consisting of private health insurance premiums and direct payments. Public program expenditures, which represented only 29 percent of the total for this age group, were limited mostly to the poor and the disabled (table 4).

Sources: Mueller, M.S., and Gibson, R.M., National health expenditures, fiscal year 1975, *Soc. Sec. Bul.*

39(2): 3-20, Feb. 1976, U.S. Dept. Health, Education, and Welfare. Mueller, M.S., and Gibson, R.M., Age differences in health care spending, fiscal year 1975, *Soc. Sec. Bul.* 39(6): 18-31, June 1976, U.S. Dept. Health, Education, and Welfare. Mueller, M.S., and Piro, P.A., Private health insurance in 1974: A review of coverage, enrollment, and financial experience, *Soc. Sec. Bul.* 39(3): 3-20, March 1976, U.S. Dept. Health, Education, and Welfare. U.S. Department of Health, Education, and Welfare, Social Security Administration, *The Size and Shape of the Medical Care Dollar*, Chart Book/1975, Pub. No. (SSA) 76-11910. U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Price Index*.

Table 4. Per capita spending for personal health care by age, type of expenditure, and source of funds, 1975

Category	Under 65		Over 65	
	<i>Dollars</i>	<i>Percent</i>	<i>Dollars</i>	<i>Percent</i>
TYPE OF EXPENDITURE				
Total	375	100	1,360	100
Hospital care		45		44
Physicians' services ..		24		16
Other professional services		12		3
Drugs and drug sundries		11		9
Nursing-home care		2		25
Other health services .		6		3
SOURCE OF FUNDS				
Total	375	100	1,360	100
Direct payments		34		29
Private health insurance		35		5
Public funds		29		66
Philanthropy and industry		2		0

Source: Mueller, M. S., and Gibson, R. M. Age differences in health care spending, fiscal year 1975. *Soc. Sec. Bul.* 39(6): 18-31, 1976. U.S. Dept. Health, Education, and Welfare.

FOOD FOR THE FAMILY—A COST-SAVING PLAN

"Food for the Family—A Cost-Saving Plan," Home and Garden Bulletin No. 209, is a new publication from USDA. It is designed especially for families who want to follow the USDA low-cost food plan. Guides for planning and preparing well-balanced meals at low cost and information on food shopping are included. Sample menus are shown for the food manager who has little time for food

preparation, as well as for the food manager who has considerable time for and interest in cooking. Tested recipes for some foods in the sample menus are included. To obtain a free copy, send a postcard to the Office of Communication, U.S. Department of Agriculture, Washington, D.C. 20250. Request publication by name and number and include your ZIP code.

FOOD FOR THRIFTY FAMILIES

"Food for Thrifty Families," a sample meal plan for a month following the USDA thrifty food plan, illustrates the kinds of nutritious meals families receiving food stamps and others who want to economize on food might serve. Included are menus for 31 days and lists of foods and tested recipes to provide meals for a family of four persons. Some tips on planning

and shopping for nutritious and economical meals are also given. To obtain free copies, send a postcard to Lillie Vincent, Office of Communication, U.S. Department of Agriculture, Washington, D.C. 20250. Request publication by name and include your ZIP code.

THE APPROPRIATE FAMILY FOOD PLAN

by Betty Peterkin

The food plan that a family can afford—thrifty, low cost, moderate cost, or liberal—depends largely on the family income and the number of persons in the family.¹ It also depends on many other factors such as whether some of the food used is raised at home and the importance the family puts on food in relation to other family needs. If the family spends the way many urban families of similar income and size do, it can probably afford the food plan as listed in the table on p. 21.

This table differs from similar tables

¹Quantities of foods in the food plans were published in the Winter 1975 (low cost, moderate cost, and liberal) and the Winter 1976 (thrifty) issues of *Family Economics Review*; estimated costs for the plans are published in each issue (see p. 26).

published in "Your Money's Worth in Foods," Home and Garden Bulletin No. 183 (revised January 1974), and in the Winter 1975 issue of *FAMILY ECONOMICS REVIEW*. The earlier tables were based on the costs for the food plans estimated for 1973 and 1974, respectively, and on data from the Bureau of Labor Statistics (BLS), Survey of Consumer Expenditures, 1960-61, updated to the same periods. This new table is based on costs for the food plans estimated for Winter 1976, and on data from the Consumer Expenditure Survey Series: Diary Data 1972 (BLS Report 448-1), updated to Winter 1976. The earlier tables showed family income after State and Federal income taxes were paid; the later table shows family income before taxes—the only type of income now available for the 1972 diary data.

Food plan that families of different sizes and incomes can usually afford, winter 1976¹

Income (before taxes)	1-person families	2-person families	3-person families	4-person families	5-person families	6-person families
\$2,500 to \$5,000	Thrifty or Low-cost	Thrifty or Low-cost	Thrifty ²	Thrifty ²	Thrifty ²	Thrifty ²
\$5,000 to \$10,000	Moderate-cost	Low-cost or Moderate-cost	Thrifty or Low-cost	Thrifty or Low-cost	Thrifty ² or Low-cost	Thrifty ²
\$10,000 to \$15,000	Liberal	Moderate-cost	Low-cost or Moderate-cost	Low-cost	Low-cost	Thrifty or Low-cost
\$15,000 to \$20,000	Liberal	Liberal	Moderate-cost	Low-cost or Moderate-cost	Low-cost	Low-cost
\$20,000 to \$30,000	Liberal	Liberal	Liberal	Moderate-cost	Moderate-cost	Low-cost or Moderate cost
\$30,000 or more	Liberal	Liberal	Liberal	Moderate-cost or Liberal	Moderate-cost or Liberal	Moderate-cost or Liberal

¹Based on costs for the food plans estimated for winter 1976, and on data from the Consumer Expenditure Survey Series: Diary Data 1972 (BLS Report 448-1), updated to winter 1976.

²Many households of this size and income are eligible for assistance through the Food Stamp Program.

Note: The plan shown in the column corresponding to the number of persons in the family and opposite the family income before taxes, costs about the amount a typical household of similar size and income spends for food. It is the plan a family of that size and income can usually afford.

ANNUAL HOUSING SURVEYS

The first Annual Housing Survey, which was conducted in October 1973, showed that there were 76 million housing units in the United States, an increase of roughly 5.8 million units over the 70.2 million (adjusted for the estimated undercount of 1.5 million housing units) in the 1970 census. Approximately 8 million new housing units were constructed during the 3½-year period between the 1970 census and the 1973 Annual Housing Survey—an annual average of 2.3 million new units. To some extent, new construction was offset by losses from the housing inventory through demolitions, disasters, and other means, such as changes to nonresidential use.

The median value of single-family owner-occupied units increased 41 percent from the median value of \$17,100 in 1970 to \$24,100 in 1973, while the median income of homeowners increased 19 percent from \$9,700 to \$11,500. Gross rents also increased significantly over the 3½-year period; the median monthly rent of \$108 in 1970 increased 23 percent to \$133 in 1973. The median income of renters increased 14 percent from \$6,300 to \$7,200 during the same period. The 1973 figures are subject to sampling variability as discussed in the report.

The 1973 Annual Housing Survey showed that 3.6 percent of the occupied housing units in the Nation lacked complete private plumbing facilities compared with 5.5 percent in 1970. Only 2.8 percent of the Nation's households experienced a breakdown in their water supply—3.3 percent had a breakdown in their flush toilet, and 1.2 percent had a breakdown in their sewage disposal system.¹

The neighborhood conditions most frequently mentioned as “being present to an objectionable extent,” were street noise and heavy traffic—by 46 percent and 29 percent, respectively. Public transportation was the neighborhood service most frequently cited as being inadequate—by 32 percent of the households. Despite these problems, 80 percent of all

households in the Nation rated their neighborhoods as good or excellent places to live.

Data from the 1973 survey were published by the Bureau of the Census in late 1975 and early 1976. Data from the 1974 survey will be available in the latter part of 1976.

Reports for the 1973 survey were issued in four parts. Each report gives data for the United States, and by region and urbanization.²

- Part A, *General Housing Characteristics*, shows data on such items as tenure, race, vacancy status, units in structure, income, and household composition. Selected counts and characteristics for new construction units and units removed from the inventory since April 1970 are also shown.
- Part B, *Indicators of Housing and Neighborhood Quality*, presents data on both the new and traditional indicators of housing quality.
- Part C, *Financial Characteristics of the Housing Inventory*, presents cross-tabulations of housing and demographic characteristics by value, rent, and income.
- Part D, *Housing Characteristics of Recent Movers*, shows data for households who moved into their present unit during the previous 12 months. These data include reason for move, household composition, and income. Cross tabulations of present unit by previous unit cover such topics as tenure, location, and units in structure.

Several supplemental reports were also issued for the 1973 survey. Reports from the 1974 survey will include parts A, B, C, and D, plus—

- Part E, *Urban and Rural Housing Characteristics for the U.S. and Regions*. (The corresponding information for 1973 was included in Parts A through D.)

²Copies of the reports for the 1973 National Survey (Part A, 164 pp. at \$3.20; Part B, 130 pp. at \$2.75; Part C, 171 pp. at \$4.25; Part D, 146 pp. at \$2.90) may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Prices for reports from the 1974 survey had not been set at the time this issue of *Family Economics Review* went to press.

¹A breakdown refers to a complete lack of running water, or a completely unusable toilet or sewage system during the 90 days preceding the survey.

- Part F, *Financial Characteristics by Indicators of Housing and Neighborhood Quality for the U.S. and Regions*. (This information was published as a supplemental report in 1973.)

A total of approximately 60,000 housing units were enumerated in the 1973 survey. To provide more detailed and reliable information for rural areas, the sample was expanded for the 1974 survey to include an additional 16,000 units located in these areas.

These surveys are designed to provide a current and ongoing series of data on selected housing and demographic characteristics. They are conducted by the Bureau of the Census for the Department of Housing and Urban Development in response to a need for frequent and up-to-date information on the Nation's housing, which is considered a prime indicator of the Nation's economic health.

The regular annual surveys will make it possible to measure changes in the housing inventory resulting from losses and new construction and to follow trends in the number and types of housing, the level of rents and the price of housing, the frequency of mechanical and utility breakdowns, and other indicators of the physical condition of residential structures. In addition, the surveys collect data on the characteristics of respondents who moved

during the last year and on the characteristics of both their previous and current residences.

The Bureau of the Census has made major efforts to produce reliable indicators of housing quality since housing data were first collected in the 1940 census. Traditionally, Federal and local housing agencies have used condition of the structure and lack of complete private plumbing facilities to identify substandard housing. Housing analysts have recognized that the concept of inadequate or poor housing encompasses more than structural condition and plumbing facilities and that a broader concept should include measures of neighborhood quality and evaluations of basic support systems such as water and sewage disposal.

The Annual Housing Surveys present statistics that for the first time describe these broader concepts of quality. The new items include such diverse indicators as breakdowns in heating and plumbing equipment, signs of water leakage in the basement and roof, physical condition of interior ceilings and floors, and the occupants' opinions of conditions in their neighborhood and of available neighborhood services.

Source: Office of Management and Budget, *Statistical Reporters*, June 1976.

SOME NEW USDA PUBLICATIONS

(Please give your ZIP code in your return address when you order these.)

Single copies of the following are available free from the U.S. Department of Agriculture. Please address your request to the office indicated.

From Office of Communication, Washington, D.C. 20250:

- A GUIDE TO BUDGETING FOR THE FAMILY. G 108. Revised March 1976.
- RENOVATE AN OLD HOUSE? G 212. March 1976.

From Economic Research Service, Division of Information, Washington, D.C. 20250:

- POPULATION CHANGE IN NONMETROPOLITAN CITIES AND TOWNS. AER 323. February 1976.

From Farmer Cooperative Service, Information Division, Washington, D.C. 20250:

- FARMER COOPERATIVE PUBLICATIONS. FCS Information 4. Revised May 1976.

From Cooperative Extension Service, Bulletin Department, Washington State University, Pullman, Wash. 99163:

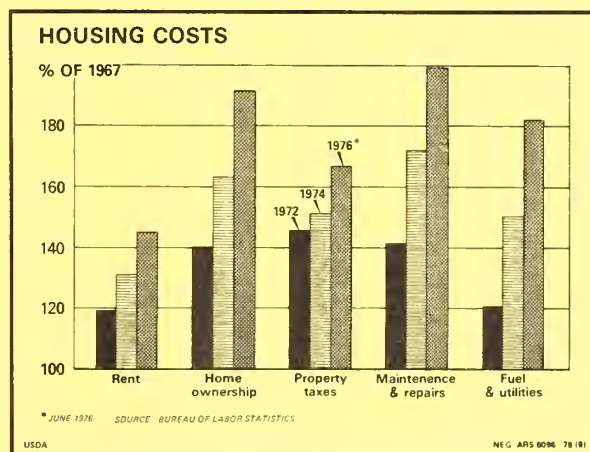
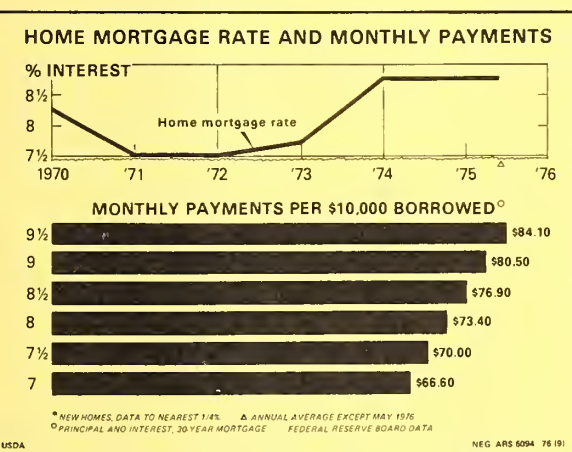
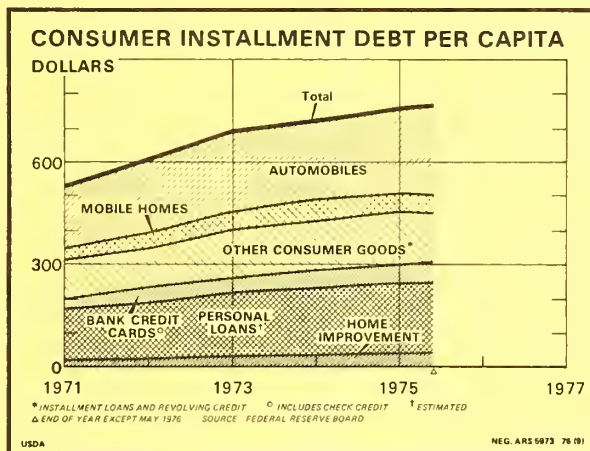
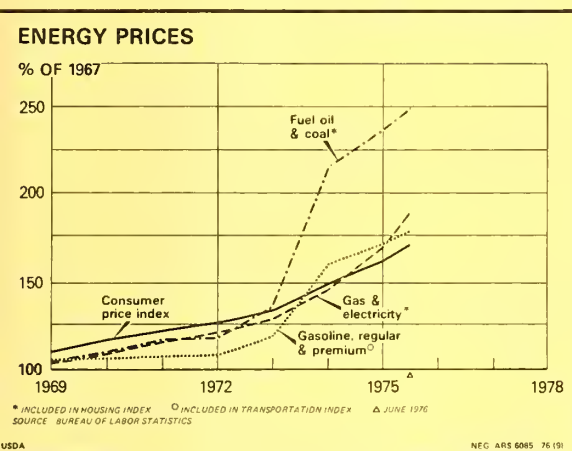
- HOME DRYING OF FRUITS AND VEGETABLES. EB 657. September 1975.

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SOME NEW USDA CHARTS¹



¹Black and white photographic prints or colored slides of charts may be ordered from Photography Division, Office of Communication, U.S. Department of Agriculture, Washington, D.C. 20250. Slides are

30 cents each and prints are \$2.70 (8" X 10" or less). When ordering, please give negative number, title of chart, and, if a print, the size desired.

COST OF FOOD AT HOME

Cost of food at home estimated for food plans at four cost levels, September 1976, U.S. average ¹

Sex-age groups	Cost for 1 week				Cost for 1 month			
	Thrifty plan	Low-cost plan	Moderate-cost plan	Liberal plan	Thrifty plan	Low-cost plan	Moderate-cost plan	Liberal plan
<i>Dollars</i>								
FAMILIES								
Family of 2: ²								
20-54 years	22.30	29.30	36.70	44.20	96.70	126.80	159.30	191.60
55 years and over	20.00	26.00	32.20	38.60	86.60	112.60	139.70	167.40
Family of 4:								
Couple, 20-54 years and children--								
1-2 and 3-5 years	31.70	41.10	51.40	61.70	137.10	178.20	222.60	267.60
6-8 and 9-11 years	38.10	49.70	62.40	75.00	165.20	215.20	270.20	324.90
INDIVIDUALS ³								
Child:								
7 months to 1 year	4.60	5.60	6.90	8.20	19.70	24.50	29.90	35.40
1-2 years	5.20	6.60	8.20	9.70	22.30	28.70	35.40	42.20
3-5 years	6.20	7.90	9.80	11.80	26.90	34.20	42.40	51.20
6-8 years	7.90	10.30	12.90	15.50	34.30	44.40	55.70	67.00
9-11 years	9.90	12.80	16.10	19.30	43.00	55.50	69.70	83.70
Male:								
12-14 years	10.60	13.60	17.10	20.50	46.00	59.10	74.10	89.00
15-19 years	11.70	15.10	18.90	22.80	50.50	65.30	81.80	98.70
20-54 years	11.20	14.70	18.60	22.40	48.40	63.70	80.50	97.20
55 years and over	9.90	12.90	16.10	19.40	42.90	56.00	69.70	84.00
Female:								
12-19 years	9.50	12.20	15.10	18.10	41.00	52.90	65.50	78.40
20-54 years	9.10	11.90	14.80	17.80	39.50	51.60	64.30	77.00
55 years and over	8.30	10.70	13.20	15.70	35.80	46.40	57.30	68.20
Pregnant	11.40	14.70	18.20	21.70	49.60	63.90	78.70	93.90
Nursing	12.20	15.60	19.40	23.20	52.70	67.80	84.30	100.50

¹Assumes that food for all meals and snacks is purchased at the store and prepared at home. Estimates for each plan were computed from quantities of foods published in the Winter 1976 (thrifty plan) and Winter 1975 (low-cost, moderate-cost, and liberal plans) issues of *Family Economics Review*. The costs of the food plans were first estimated using prices paid in 1965-66 by households from USDA's Household Food Consumption Survey with food costs at 4 selected levels. These prices are updated by use of "Estimated Retail Food Prices by Cities" released monthly by the Bureau of Labor Statistics.

²10 Percent added for family size adjustment. See footnote 3.

³The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person--add 20 percent; 2-person--add 10 percent; 3-person--add 5 percent; 5-or-6-person--subtract 5 percent; 7-or-more-person--subtract 10 percent.

CONSUMER PRICES

Consumer price index for urban wage earners and clerical workers

(1976 = 100)

Group	Sept. 1976	Aug. 1976	July 1976	Sept. 1975
All items	172.6	171.9	171.1	163.6
Food	181.6	182.4	182.1	177.8
Food at home	179.9	181.0	180.9	178.2
Food away from home	188.7	187.8	186.9	176.5
Housing	179.5	178.4	177.5	168.9
Shelter	181.5	180.6	179.5	171.6
Rent	146.2	145.6	145.0	138.4
Homeownership	194.4	193.4	192.2	183.9
Fuel and utilities	185.1	183.7	182.5	170.9
Fuel oil and coal	250.8	249.3	248.1	238.7
Gas and electricity ..	192.2	190.3	189.6	174.0
Household furnishings and operation	170.2	169.1	168.9	160.1
Apparel and upkeep	150.2	148.1	146.5	143.5
Men's and boys'	150.1	147.5	145.6	142.8
Women's and girls'	145.0	142.2	140.2	139.9
Footwear	152.3	151.0	149.6	144.6
Transportation	169.5	168.5	167.6	155.4
Private	168.6	167.8	166.8	153.9
Public	176.9	174.6	174.4	169.5
Health and recreation	165.3	164.4	163.7	155.4
Medical care	187.9	186.8	185.5	172.2
Personal care	162.8	161.6	160.5	152.1
Reading and recreation .	152.8	151.4	151.2	146.0
Other goods and services	153.9	153.8	153.6	148.0

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Index of prices paid by farmers for family living items

(1967 = 100)

Item	Sept. 1976	Aug. 1976	July 1976	Sept. 1975	Aug. 1975	July 1975
All items	178	177	177	169	169	168
Food	184	---	---	182	---	---
Clothing	---	189	---	---	174	---
Housing	180	178	178	170	169	169
Medical and health	187	186	184	171	170	168
Education, recreation, and other	154	154	153	148	147	147

Source: U.S. Department of Agriculture, Statistical Reporting Service.

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